

[1] **EC-TYPE EXAMINATION CERTIFICATE**
according to Directive 94/9/EC, Annex III



(Translation)

- [2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- [3] EC-Type Examination Certificate Number: **IBExU09ATEX1144 X**
- [4] Equipment: Highest-pressure transmitter
Type DX17-DMP 304 and DX17-DMP 303
- [5] Manufacturer: BD SENSORS GmbH
- [6] Address: BD-Sensors-Str. 1
95199 Thierstein
GERMANY
- [7] The design of the equipment mentioned under [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.
- [8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that the under [4] mentioned equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The test results are recorded in the test report IB-09-3-162 of 4 November 2009.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2006, EN 60079-11:2007 and EN 60079-26:2007.
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified under [17] in the schedule to this EC-Type Examination Certificate.
- [11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.
- [12] The marking of the equipment mentioned in [4] shall include the following:

II 1G Ex ia IIC T4

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Authorised for certifications Explosion protection

Freiberg, 4 November 2009

By order

(Dr. Wagner)



(ID no. 0637)

Certificates without signature and seal are not valid.
Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU09ATEX1144 X**

[15] **Description of equipment**

The highest-pressure transmitters DX17 are different pressure measurement devices in stainless steel enclosure with pressure port. As measuring cell serves a strain gauge (DMP 304) or a thinfilm sensor (DMP 303). The devices are intended for use in potentially hazardous areas, where Category 1G devices are required. They are supplied by an intrinsically safe power supply of the Category „ia“.

Technical Data

supply electric circuit in type of protection Intrinsic Safety Ex ia IIC
(supply + and -)

U_i 28 V DC

I_i 93 mA

P_i 660 mW

effective inner capacity

C_i negligible

effective inner inductivity

L_i negligible

calibration input in type of protection Intrinsic Safety Ex ia IIC
(calibration + and -)

U_i 28 V DC

I_i 93 mA

P_i 660 mW

effective inner capacity

C_i negligible

effective inner inductivity

L_i negligible

plus line inductivities 1 μ H/m and line capacities 160 pF/m (cable supplied by the manufacturer)

Both circuits must be supplied from the same supply source.

The supply connections have an inner capacity of max. 27 nF to the housing.

Ambient temperature range -25 °C to +70 °C

[16] **Test report**

The test results are explained in detail in the test report IB-09-3-162. The test documents are part of the test report and listed there.

Summary of the test results:

The highest-pressure transmitters DX17 fulfil the requirements of type of protection Intrinsic Safety 'ia' for an electrical equipment of the Equipment Group II, Category 1G, Explosion Group IIC and Temperature Class T4.

[17] **Special conditions**

- The equipment designed with connector have to be installed in such a way that the degree of protection IP 20 is always kept.
- The safety and assembly instructions contained in the operating instruction and the ambient temperature range $-25\text{ °C} \leq T_a \leq +70\text{ °C}$ have to be taken into account.
- The device may be operated in explosive atmospheres which requires equipment of Category 1 only when there are atmospheric conditions (temperature of -20 °C to +60 °C, pressure of 0.8 bar to 1.1 bar).

[18] **Essential Health and Safety Requirements**

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 4 November 2009

Wagner

(Dr. Wagner)